

TOPXCDZ SP621E

TOPXCDZ SP621E Mini Bluetooth RGB LED Controller User Manual

Model: SP621E

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of your TOPXCDZ SP621E Mini Bluetooth RGB LED Controller. This device is designed to control various addressable LED strip lights, offering dynamic lighting effects and app-based control.

2. SAFETY INFORMATION

- Ensure the power supply voltage matches the controller's operating voltage (DC5V~24V).
- Do not expose the controller to moisture or extreme temperatures (-20°C to 60°C).
- Disconnect power before making any connections or performing maintenance.
- This product is designed for indoor use only.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- 1 x SP621E Mini Bluetooth RGB LED Controller
- *(Note: LED strip adapter is not included and must be purchased separately.)*

4. PRODUCT OVERVIEW

The SP621E is a compact Bluetooth controller for addressable LED lights. It features a data input, ground, and power connection for seamless integration with compatible LED strips.



Image 1: Front view of the SP621E Mini Bluetooth LED Controller, showing the model number and QR code for app download.



Image 2: Angled view of the SP621E Mini Bluetooth LED Controller, highlighting its compact size and wiring connections.

5. SETUP AND CONNECTION

Follow these steps to connect your SP621E controller to your LED strip and power supply:

1. **Prepare Components:** Ensure you have the SP621E controller, a compatible WS2811/WS2812/WS2813 LED strip, and a suitable DC5V-24V power supply.
2. **Connect LED Strip:** Connect the data (D), ground (G), and positive (+) wires from your LED strip to the corresponding terminals on the SP621E controller. Ensure correct polarity.
3. **Connect Power Supply:** Connect the DC5V-24V power supply to the power input of the SP621E controller.
4. **Verify Connections:** Double-check all connections before applying power. Incorrect wiring can damage the controller or LED strip.



Image 3: A visual diagram illustrating the connection of the SP621E controller to an LED strip and a power adapter.

6. APP INSTALLATION

The SP621E controller is managed via the 'SceneX' mobile application.

1. **Download App:** Search for "SceneX" in the Apple App Store (for iOS 10.0 or later) or Google Play Store (for Android 4.4 or later).
2. **Install:** Download and install the application on your smartphone or tablet.
3. **Bluetooth Pairing:** Ensure Bluetooth is enabled on your device. The app supports automatic device connection and re-connection.

7. OPERATING INSTRUCTIONS

Once the app is installed and connected to your controller, you can access various features:

7.1. App Control Interface

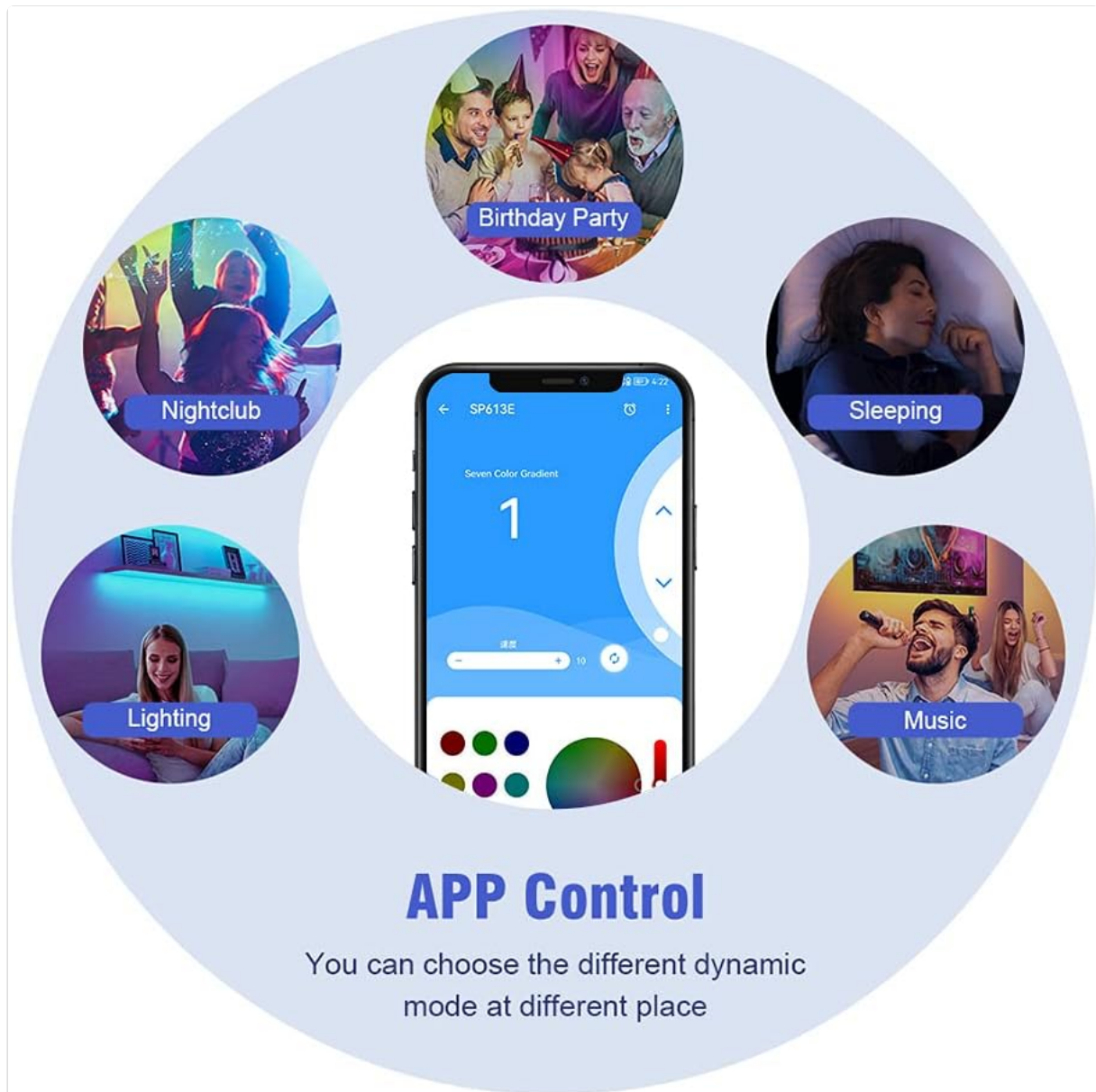


Image 4: Screenshot of the 'SceneX' app interface, showing color selection, brightness control, and various dynamic modes for different occasions.

7.2. Dynamic Effects

- The controller has **142 built-in dynamic effects**.
- Adjust the **effect length** to customize the speed and duration of dynamic patterns.
- Utilize the **favorite effects collecting function** to save your preferred lighting sequences.

7.3. Music Effects

- Features **18 built-in music effects** that synchronize with audio.
- **Sound Collection Methods:** Choose between your phone's microphone or player streaming for audio input.
- Adjust the **effect length** and **sensitivity** to fine-tune the music synchronization.

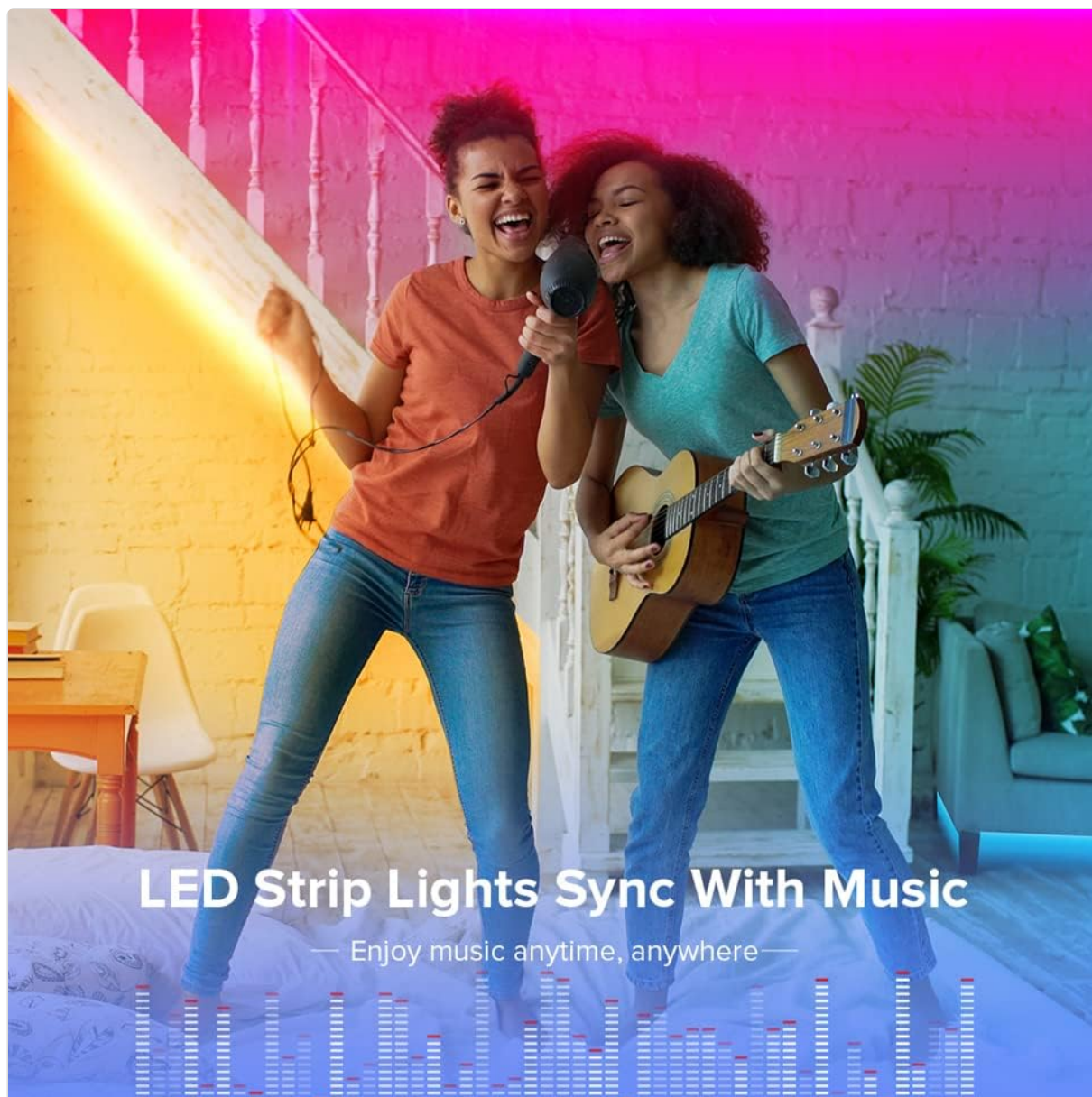


Image 5: An illustration of LED strip lights synchronizing with music, creating an immersive audio-visual experience.

7.4. Additional App Functions

- **Device Naming:** Modify the device name for easy identification, especially when controlling multiple units.
- **RGB Channel Sequence Calibration:** Adjust the RGB channel order if colors appear incorrect.
- **Timer Function:** Set schedules for your lights to turn on or off automatically.
- **Grouping Control:** Control multiple SP621E devices simultaneously by grouping them within the app.

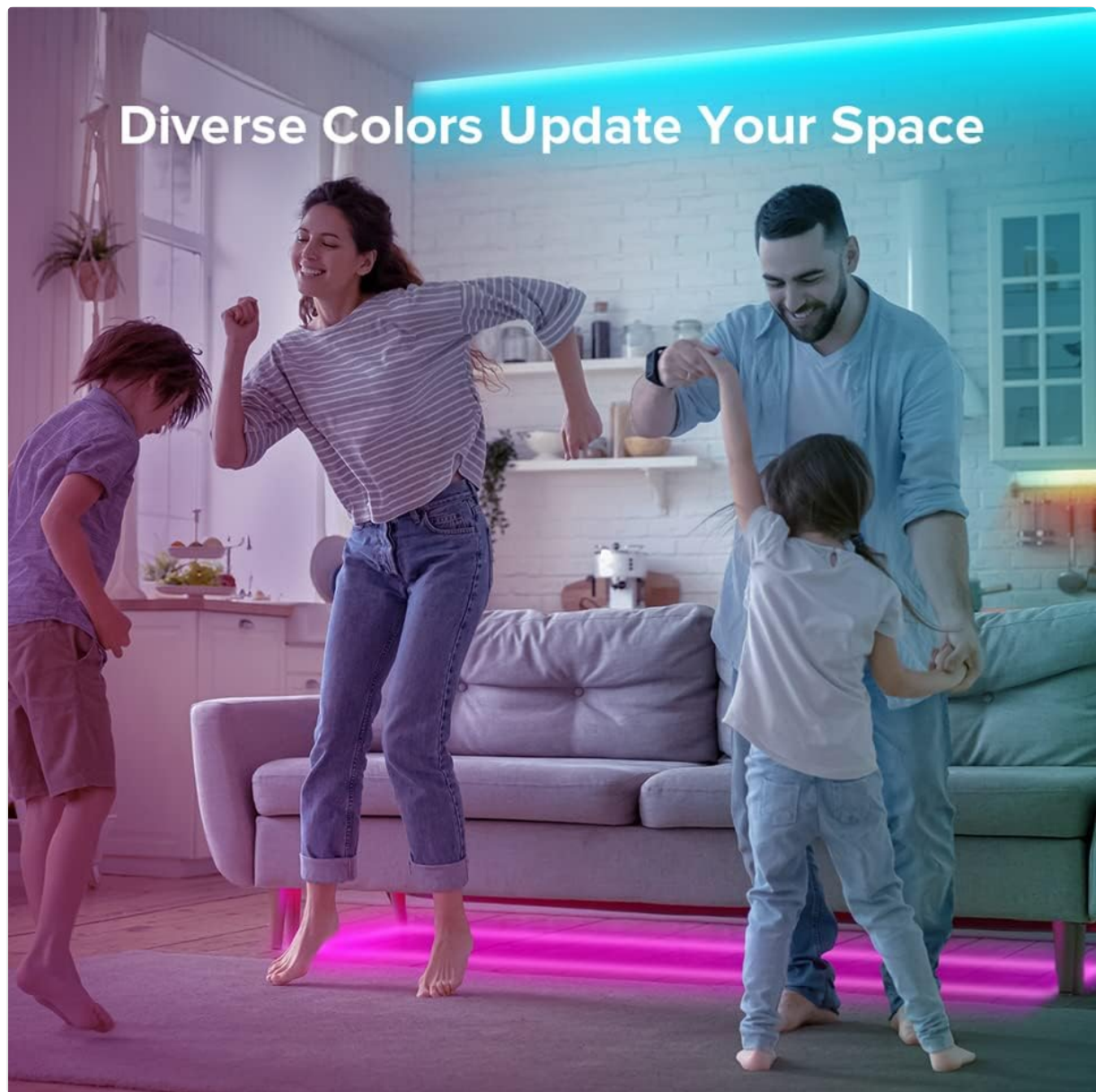


Image 6: A family enjoying a living space illuminated with diverse, vibrant LED colors, demonstrating the aesthetic versatility of the controller.

8. COMPATIBILITY

The SP621E controller is compatible with common single-line LED driver ICs, including:

- WS2811
- WS2812B
- WS2812
- WS2813

It can drive up to 600 pixels, supporting various LED strip, module, and lamp configurations.



WS2812B Ring



5V Module



WS2812B String

Applicable Lights



5V WS2812 String



WS2811



**WS2812B
Pre-soldered led**



WS2812B



WS2812 Panel

Image 7: A collage showing various types of addressable LED lights compatible with the SP621E controller, such as WS2812B rings, pre-soldered LEDs, 5V modules, and LED panels.

9. SPECIFICATIONS

Working Temperature	-20°C ~ 60°C
Working Voltage	DC5V ~ 24V
Onboard Current	2.9A
Max Pixels Driven	600 pixels
Control Method	Bluetooth App (SceneX)
App Compatibility	iOS 10.0+, Android 4.4+
Dynamic Effects	142 built-in
Music Effects	18 built-in

10. TROUBLESHOOTING

- **Lights not turning on:** Check power supply connection and voltage. Ensure LED strip is correctly wired to the controller.
- **Incorrect colors:** Use the RGB channel sequence calibration function in the 'SceneX' app to adjust the color order.
- **App not connecting:** Ensure Bluetooth is enabled on your phone. Restart the app and the controller. Verify your phone meets the minimum OS requirements.
- **Effects not working:** Check if the LED strip type is compatible with the controller. Ensure the app is properly connected and commands are being sent.

11. MAINTENANCE

The SP621E controller requires minimal maintenance:


- Keep the device clean and free from dust.
- Avoid exposing it to direct sunlight or high humidity.
- Do not attempt to open or repair the controller yourself, as this may void any potential warranty.

12. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the retailer's policy or contact TOPXCDZ customer service. Keep your purchase receipt for proof of purchase.

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Related Documents - SP621E

	<p>SP621E Mini Bluetooth Music Pixel LED Controller User Guide</p> <p>Detailed information on the SP621E Mini Bluetooth Music Pixel LED Controller, including features, app functions, technical parameters, wiring, and FCC compliance.</p>
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